

Custom rolls and the Baltic fish trade 15th - 19th centuries - potentials and pitfalls

Poulsen, Bo

Publication date:
2010

Document Version
Early version, also known as pre-print

Citation for published version (APA):
Poulsen, B. (2010). *Custom rolls and the Baltic fish trade 15th - 19th centuries - potentials and pitfalls*.
<http://www.soundtoll.nl/>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

Take down policy

If you believe that this document breaches copyright please contact rucforsk@kb.dk providing details, and we will remove access to the work immediately and investigate your claim.

Indholdsfortegnelse

Custom rolls and the Baltic fish trade 15th - 19 th centuries – potentials and pitfalls	1
Introduction.....	1
Material flows – custom rolls.....	2
Number of species in different custom rolls	3
A conspicuous look at the oyster	7
Matching numbers.....	11
Discussion	14

Title:

Custom rolls and the Baltic fish trade 15th - 19th centuries – potentials and pitfalls

By Bo Poulsen, Research groups Environmental Dynamics, Department of Environmental, Social and Spatial Change & History of Culture and Ideas, Department of Culture and Identity, Roskilde University, Denmark.

Introduction

This paper focuses on some of the challenges in using custom rolls as a source of information for assessing the rise in conspicuous consumption of fish products, here especially oysters. There are two reasons why such an investigation should be carried out.

First of all, human exploitation of marine resources in present society is rapidly and widely causing fish stocks and marine mammals to be depleted across the oceans. Humans, as consumers of ever more exotic fish, are the ultimate driver of this process, and there is a big need for informing the everyday consumer of what we are doing to our marine resources. Historians can play a role by writing compelling stories on the origins and long term rise and spread of what could be termed *conspicuous marine consumption*. The consumption of a species such as the European oyster (*Ostrea edulis*), which have next to no nutritional value, but a very high price is an example of how the desire for an exclusive product have lead to depletion and disappearance of local populations in Northern Europe already one or more centuries ago.

Secondly, one of the main drivers in the rise of the West in the early modern period are the changes in consumption patterns, which took place gradually over a very long time period. Division of

labour and economic growth requires the existence of efficient markets demanding a multitude of products. Historians know this as the rise of ‘conspicuous consumption’, which occurred exactly over the centuries covered by STR.¹ With a digitisation of STR in its totality several types of analyses, which hitherto have been very difficult to make, will be made possible.

While a good deal of historical research has focused on the development of markets for colonial products such as tea, sugar, coffee and tobacco, conspicuous fish consumption has by and large escaped interest of social and economic historians. In the early modern period fish as a bulk commodity and staple diet was facing a declining interest. Consumption per capita in Northern Europe declined gradually over the course of the 17th century, first in the countries around the North Sea, later towards German territories and around the Baltic Sea.² On the other hand, it is worth investigating when, and how consumers in Northern Europe developed their ever increasing taste for exotic species, which today has such a large impact on marine ecosystems. Indeed one might be able to argue that part of becoming modern is to stop eating masses of salty herring and cod and switch to more exotic species such as oysters. Oysters in turn became a common craze in the 19th century, where street sellers were offering millions of oyster to New Yorkers, while the annual consumption of oysters in London in 1880 was estimated at 500 million animals.³

This paper is merely scratching the surface of the vast data hidden in the Sound Toll Registers, touching upon some of the multitudes of research that are to come out of the STR-online project. The focus here is on the Sound Toll Registers as a challenging source, on the rise of conspicuous consumption and on the possibilities of charting the oyster’s route from watery mudflats to wealthy dinner tables.

Material flows – custom rolls

In terms of taking the temperature of material flows such as food trade over longer time periods custom rolls are, along with house hold accounts, probably the best type of source. Among these the Sound Toll Records could be considered for human activities in Europe the equivalent of what Greenland ice cores are for taking the temperature of the climate history of the Northern

¹ De Vries, J., *The Industrious Revolution, Consumer behavior and the household economy, 1650 to the present*, (Cambridge University Press, 2008).

² Poulsen, B., *Dutch Herring. An Environmental history, c. 1600-1860*, (Amsterdam: Aksant Publishers 2008)

³ Kurlansky, Mark, *The Big Oyster. History on the Half Shell*, (Ballantine Books, 2006); Plenge, J., ‘London før og nu’, in: *Geografisk Tidsskrift*, 8, (1885-86).

hemisphere. Below, I have scratched the surface of the STR-online database 1.0 as well as the overlapping Johansen dataset, also digitized as part of the STR-online project.⁴

For this exercise however, I have limited comparative analyses to include the Pärnu City Customs Records, which exist for the time period 1764-82 (minus 1765), which are overlapping the years processed by the STR-online project. Recently. As part of the EU INCO-project INCOFISH, the Pärnu City Customs Records were investigated for their content of marine products. The data were digitized and published on the web, www.hull.ac.uk/incofish.⁵ In total there are some 1442 entries each containing information on an individual item of marine product such as herring, cod or oysters. In fact 148 entries deal specifically with oysters. The Pärnu records are extremely detailed and contain information on how much of a given product was imported, who the buyers were, where the ship came from, and in some cases even the type of vessel, the number of crew onboard and how long the ship had been to sea to reach its destination. One entry from 1 October 1767 reads that Mrs. Mayor Bohnsack was buying 1 fäschen with fresh oysters from ,Schiffer Moritz Christiansen von Lübeck, kommend mit mein ein Mast-Gallioth Schiff die Frau Agatha genandt von Lübeck, groß 42 Last, fahre starck 7 Mann, gehe tief 8 fuß, bin unterwegs gewesen 5 tage‘. Now, a ship coming from Lübeck will not show up in the Sound Toll Records, but the ones that came from ports outside of the Baltic, should do. Therefore, it is possible to combine the two datasets in order to get a fuller picture of the preferred trade routes into the Baltic.

As the process of digitization moves along they can be combined with regional custom rolls etc., covering several centuries. In terms of detecting the spread of conspicuous fish consumption existing digital datasets include the custom rolls from 1663-1703 for the then Swedish, now Estonian port of Narva, which the INCOFISH-project also made digitally available.⁶

Number of species in different custom rolls

In the Pärnu custom rolls, 1764-82 there is a list of 26 food products stemming from at least 18 marine species (Table 1). Some could potentially have been caught locally, but others definitely not. While cod and herring are the most prominent species in terms of total numbers, 7 species are and were not native to The Baltic Sea at all. Therefore, they must have been imported via long distance

⁴ Johansen, H. C., 'sont_reconstructed_v3.02 – database.'

⁵ K. Kaju, 'Estonian Fisheries: Pärnu City Customs Records', in D.J. Starkey & J.H. Nicholls (comp.) Shifting Baselines: INCOFISH WP2 Data Pages (www.hull.ac.uk/incofish)

⁶ K. Kaju, 'Estonian Fisheries: Narva City Customs Records', in D.J. Starkey & J.H. Nicholls (comp.) Shifting Baselines: INCOFISH WP2 Data Pages (www.hull.ac.uk/incofish)

trading. These include crab, anchovy, lobster, mussels, oysters, mackerel and sardines. While herring, (*Clupea harengus*) and cod live in commercial quantities in both the Baltic Sea and the North Sea, ‘strømming’ is usually the name of Baltic herring (*Clupea harengus harengus*), which is a distinct sub species belonging in the Baltic proper.

Table 1. Marine species in Pärnu custom rolls:

Database name	English name
Engraulidae	Anchovy
Clupea harengus membras	Baltic herring
Sprattus sprattus	Brisling
Gadus morhua	Cod
Crab	Crab
Anguilla anguilla	Eel
Pleuronectidae	Flounder
Clupea harengus	Herring
Petromyzontidae	Lamprey
Langfisch	Ling
Lobster	Lobster
Scomber scombrus	Mackerel
Mussels	Mussels
Oysters	Oysters
Salmo spp.	Salmon
Sardines	Sardine
Seal-oil	Seal
Scophthalmus maximus	Turbot

Comparing with what went through the Sound as evident from the STR-online database 1769-1792, more than 200 different types of cargo entries relate to marine products. This includes the Westbound as well as Eastbound ships. Different spelling and the use of for instance herring in multiple types of products ranging from train oil to dried and smoked fish account for the bulk of the marine cargo entries, but the total number of individual species amounts to at least 19 (Table 2).

Similarly to the Pärnu records, there are several species, which do not live in The Baltic Sea such as anchovy, lobster, ling, whale products, mackerel – and oysters.

Table 2. Marine species in STR-online database vers 1.0.:

Listed name	English name
Ansiovis	Anchovy
Strømming	Baltic herring
Torsk	Cod
Aal	Eel
tøren fløndre	Flounder
Tørret kuller	Haddock
Sild	Herring
Lenger	Ling
Hummer	Lobster
Makrel	Mackerell
Østers	Oyster
Rocker	Ray
Gråsej	Saithe
Laks	Salmon
Sælskind	Seal
Tonger	Sole
Caviar, Stør	Sturgeon
Sperm lys	Whale – sperm
Hvilling	Whiting

The Johansen database lists no less than 30 different fish products. Some of the products though, are derived from the same species, such as smoked and salted herring, while other products such as ‘tørfish’ meaning dried fish can originate from several species. This means that the total number of marine species going through The Sound is at least 19. (Table 3.

Table 3. Johansen database:

Listed name	English name	
Ansjovis	Anchovy	
Strømming	Baltic Herring	
Torsk,saltet	Cod	
Ål	Eel	
Flyndere, tørrede	Flounder	
Kuller, tørrede	Haddock	
Sild	Herring	
Langer	Ling	
Hummer	Lobster	
Makrel	Mackerell	
Østers	Oyster	
Rokker	Ray	
Grå sej	Saithe	
Laks	Salmon	
Tunger	Sole	
Stør	Sturgeon	
Hvalbarder,	Whale	–
Hvalfiskeben	baleen	
	Whale	–
Spermacetlys	Sperm	
Hvilling	Whiting	

When compared to the STR-online data the only difference to the Johansen database is that seal skin appear in STR only, while in the Johansen dataset it is possible to distinguish between two types of whale, baleen species and sperm whale. In the data from Pärnu there are no whale products, sturgeon, ray, sole, whiting or haddock, but other species such as sprat, crab, lamprey, mussels and turbot were imported into the Estonian port.

A conspicuous look at the oyster

One species which appear in all three datasets, and may by any standard be considered a piece of conspicuous consumption in the Baltic is the European oyster. The European oyster has been fished for human consumption since Neolithic times, where it was also found in middens into the Danish straits. Within the last millennium though, there is no doubt that the salinity gradient of the North Sea and Baltic ecosystems, making the waters of the Bothnian Bay rather brackish, in combination with the cold winter temperatures of the Baltic Sea makes it impossible for the oyster to thrive South of the Danish straits. Therefore, any oyster consumed in for instance Estonia will have come from far away.

In Early Modern Northern Europe oysters were fished commercially in at least five different places. The largest oyster beds may have been along the French Atlantic coast, but significant beds were also exploited in The Netherlands, in the Holstein part of the Waddensea, in the Firth of Forth area of Scotland and to varying extent in Southern parts of Norway.⁷ Other oyster dredging became exploited later, for instance South of Skagen in Denmark from ca. 1760-1870 and in the Danish Limfjord towards the latter decades of the 19th century.⁸ For the latter fishery in the Limfjord early fisheries statistics is an aid in assessing the size of the different fisheries, but further back in time it is often difficult to find data quantifying the size of the different fisheries, nor substantial evidence on where the various oyster products were sold. This is where data such as custom rolls become highly useful.

Table 4 The port of departure for ships landing oyster in Pärnu, 1764-1782.

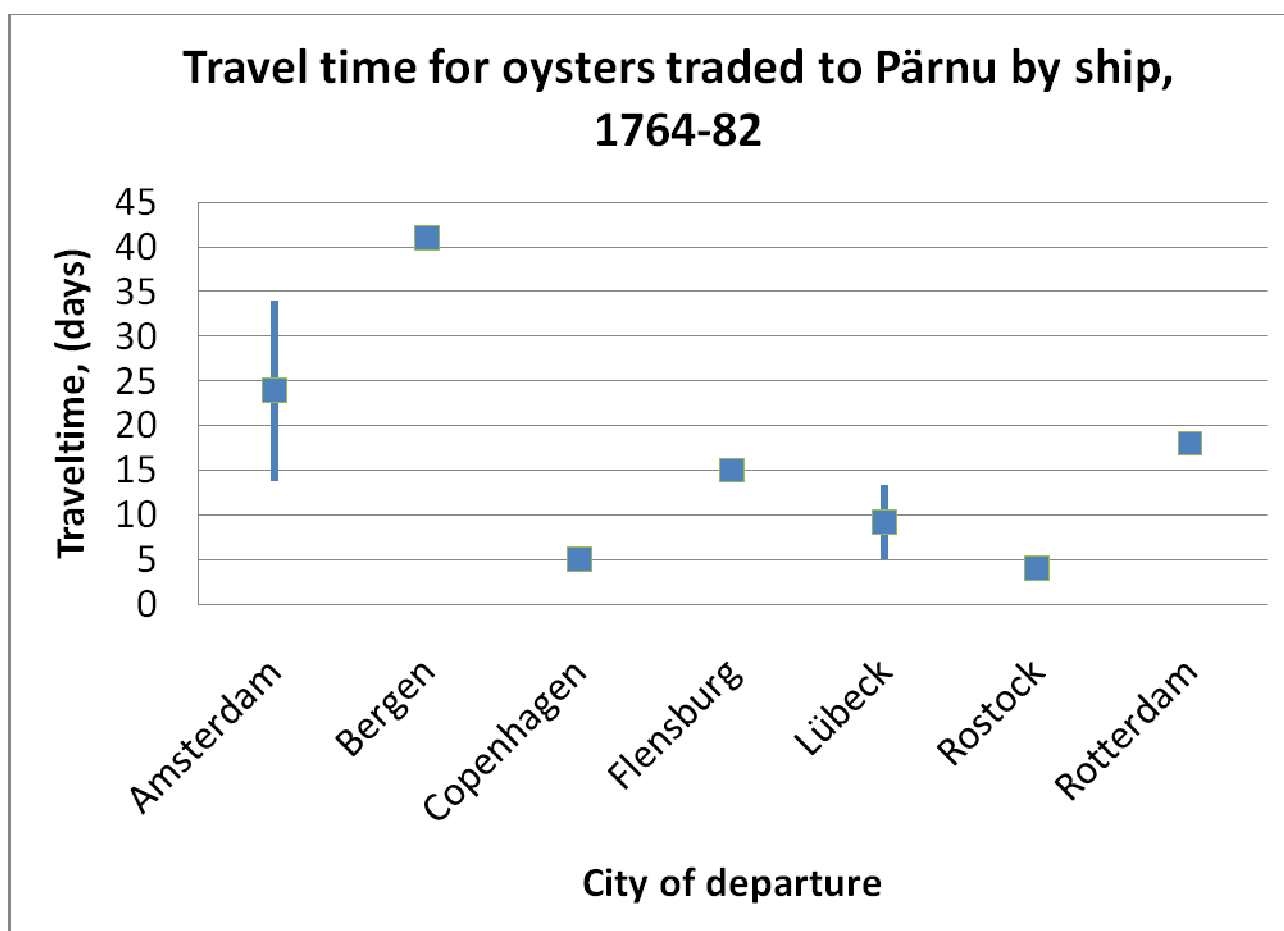
Amsterdam	25
Bergen	1
Copenhagen	1
Flensburg	1
Lübeck	40
Rostock	1
Rotterdam	1

⁷⁷ Krøyer, Henrik, *De Danske Østersbanker*, (1837); Knox, John, *Observations on the Northern Fisheries. With a discourse on the expediency of establishing fishing stations, or small towns, in the Highlands of Scotland, and the Hebride Islands*, (London, 1786); Nielsen, Torben, 'Prams Rejser i Det Sydlige Norge, 1804-1805,' in: *Fund og Forskning*, 10, (1963), p.89.

⁸ Krøyer, Henrik, *De Danske Østersbanker*, (1837); Marboe, Anne Husum (ed), 'Limfjord Fisheries 1859-79', in D.J. Starkey & J.H. Nicholls (comp.) *Shifting Baselines: INCOFISH WP2 Data Pages* (www.hull.ac.uk/incofish)

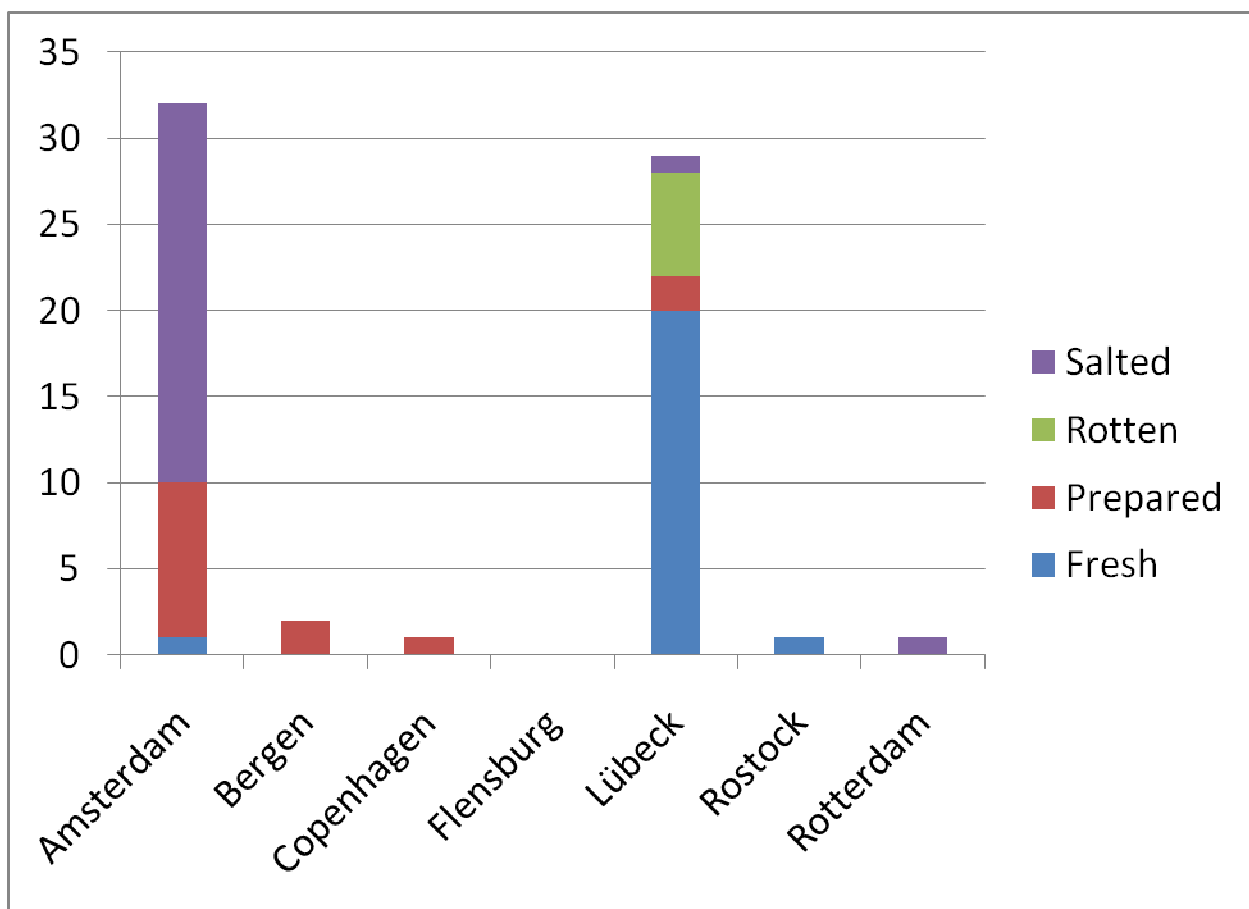
In the custom rolls for imported goods into Pärnu the port of departure for the ships landing oysters is listed in table 4. Lübeck is by far the most important port with 40 shipments, while 25 ships came from Amsterdam and one each from the cities of Bergen, Copenhagen, Flensburg, Rostock and Rotterdam. We may deduce that the ship coming from Bergen is likely to carry with it Norwegian oyster, while the ships from the The Netherlands would sell Dutch or French oysters. When it comes to the Baltic ports, the oysters will have travelled from somewhere else before reaching Lübeck, Flensburg, Rostock or Danzig. Unsurprisingly the travel time for the ships coming from the Baltic ports were on average much shorter than for the vessels coming from the North Sea area. Less than 10 days was the average duration of a trip from Lübeck, while a trip from Amsterdam typically lasted between 3 and 4 weeks (Figure 1).

Figure 1. Travel time for oysters traded to Pärnu by ship 1764-82.



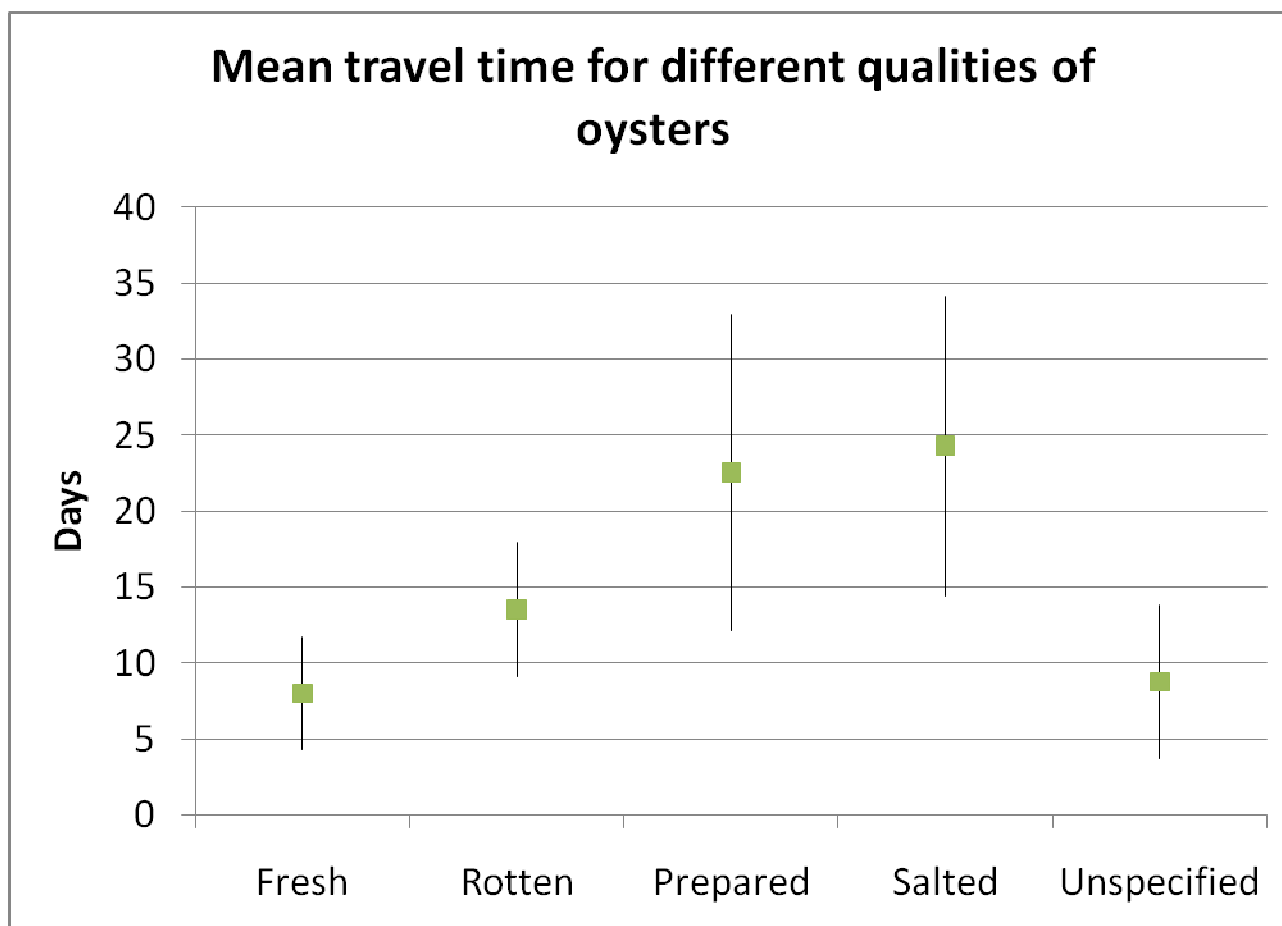
Speed is a factor when trying to lower transaction costs, but in the case of oysters, especially the fresh product is an easily perishable product. Although it should be possible to keep the oysters alive with a frequent change of salt water, the speed of transportation would seem important when appealing to the end consumer. This becomes evident from the chart showing the different types of oyster products sent from the North Sea coasts which were processed either ‘salted’ or ‘pickled’ in comparison with what was shipped from the Baltic ports, where especially the ones from Lübeck were most often marketed as ‘fresh’ or ‘rotten’ (Figure 2).

Figure 2. Types of oyster product sent from various cities to Pärnu.



This becomes clear when estimating the mean travel time for the different qualities of oyster. Typically fresh oysters reached Pärnu after a journey of 8 days, while the rotten ones had been 13 days at sea on average. The pickled and salted ones were more than 20 days on board a ship, which would normally have sailed from a port West of Danish Straits (Figure 3). Furthermore, the majority of oyster loads that remained unspecified in the sources are normally at sea for only 9 days. This seems to indicate that ‘unspecified’ oysters in this case are ‘fresh’.

Figure 3. Mean travel time at sea to Pärnu for different qualities of oyster.



This leaves the question of where the oysters eaten in Estonia had been fished. In only two cases does the Pärnu records reveal the origin, which is for two shipments coming from Lübeck. One is labelled ‘Dutch’, while the other comes from ‘Holstein’. One can speculate then that merchants trading via Lübeck had specialised in bringing fresh – meaning live, oysters from the North Sea into the Baltic. If they had come first by way of The Sound, they could potentially appear in the Sound Toll Records. However it is more likely that the live product was shipped from Holstein and The Netherlands via the Elbe River and the Trave river up to Lübeck, or in the case of the Holstein oysters, across the Southern parts of the Jutland peninsula. All the Pärnu data are from just before the opening of the Eider Canal in 1784, so this route was not an option.⁹ The one shipment originating from Bergen is likely to have been caught in Norwegian waters as well.

⁹ Feldbæk, Ole, *Storhandelens Tid, Dansk Søfarts Historie*, 3, (Copenhagen: Gyldendal, 1997), p. 90-91.

Clearly, trip duration, the quality of the product and ports of departure and arrival are all important factor when trying to assess the spread of oysters from the bottom of the sea to the high tables of the Eastern Baltic. This makes comparison with the Sound Toll Registers highly relevant.

Matching numbers

With regards the STR-online database covering 1769-1791, oyster appear 5 times in the records, The first time is in 1778, when Hans Hansen Ouestad entered the Sound 22 October on his way from Stavanger to Copenhagen with ‘østers og torsk’. In 1789 John Coole sailed oysters from London to St. Petersburg, while Ernst Schueneman shipped oyster from Marstrand to Norrköping through the Sound. Finally in 1791, two ships came from Stavanger with oyster destined for Copenhagen and St. Petersburg respectively. None of the oyster landings in Pärnu however, are noted in the STR-online database.

Table 5. Ships with oyster landing in Pärnu in 1778.

			Domicil			
ID_skipper	first name	Last name	skipper	ship from	destination	date
68	Peter	Decken	Flensburg	Flensburg	Pärnu	17. Apr.
58	Hans	Sietam	Lübeck	Lübeck	Pärnu	9. May
59	Jan	Janse Visser	Unknown	Amsterdam	Pärnu	15. June
60	Hinrich	Koop	Lübeck	Lübeck	Pärnu	23. Oct.
	Nicolaus					

A look into the arrivals into Pärnu in 1778 illustrates this (Figure 5). Two ships came from Lübeck and one from Flensburg, neither of which are likely to have passed The Sound en route. According to STR-online, the ship lead by Jan Janse Visser came from Amsterdam and passed The Sound on 12 May on his way to Pernau (ID:215193), and their cargo was ‘ballast og 7 Anker Fr. Viin og for 12 Rd. Cramerie’¹⁰ (Figure 4). This means that if there were oysters onboard, then they were not mentioned in the custom house report or hidden under the name ‘cramerie’. Perhaps the oysters were added to the ship later on during the trip? Spending 5 weeks travelling between Elsinore and Pärnu indicates that they were not exactly taking the direct route? The return on the other hand, was

¹⁰ Sonttolregisters-251_0441.jpg

very quick. Already by the 20 June did Jan Janse Visser report at Elsinore again, this time bringing rye, wooden planks and ‘Gem. dehler’ with him to Amsterdam.

Figure 4. Jan Janse Visser passing The Sound 12 May 1778.

Num:	Major	Transp:	Rosell	Vigsdaler	84
446.	Visse Meers, alder Rind, fra Amsterdam, til 6 ster. Rind, med hallolog.			5194	12...
	for 10 ster. Rind			2 1/2	12...
447.	Jan Janse Visser, alder fra Amsterdam, til Fernau, med hallolog.				
	for 10 ster. Rind				
	for 10 ster. Rind				
448.	Frederik Hansen, alder fra St. Petersburg, til 6 ster. Rind, med hallolog.				
	for 10 ster. Rind				
	for 10 ster. Rind				

All four shipments registered in the STR-online database as ‘østers’ also feature in the Johansen database, which covers the years 1784-95. The Johansen database though, for which there is an overlap of eight years includes 4 additional passages, where ‘østers’ is listed as the cargo (Table 6). In 1786, oysters came from Stavanger to Copenhagen, and when searching the STR-database for Halkild Jensen the same shipment shows up, and indeed it did bring oysters, only they are listed together with cod as ‘endeel østers og torsk’. Furthermore the destination in one database is Copenhagen, in the other St. Petersburg.

For 1787 Johansen lists a shipment from London headed for St. Petersburg, but so far there are no entries in the STR-database for that year.

In 1788, Copenhagen was the destination for a shipment of oysters from Newcastle on a ship skippered by Ole Bergesen from Farsund, but he does not appear in the STR-database for that particular year. Finally in 1789 the difference between the two databases lie in the STR-database having listed the oyster shipment by John Coole as ‘steen og østers’.

For the years 1790 and 1791, the databases have identical information. In both years for instance did Adrian Jacobsen Holm from Farsund sail with oysters from Stavanger to St. Petersburg. The comparison between oysters landed in all three databases illustrates the differences (Figure 5).

Figure 5. Number of ships with oysters in three datasets.

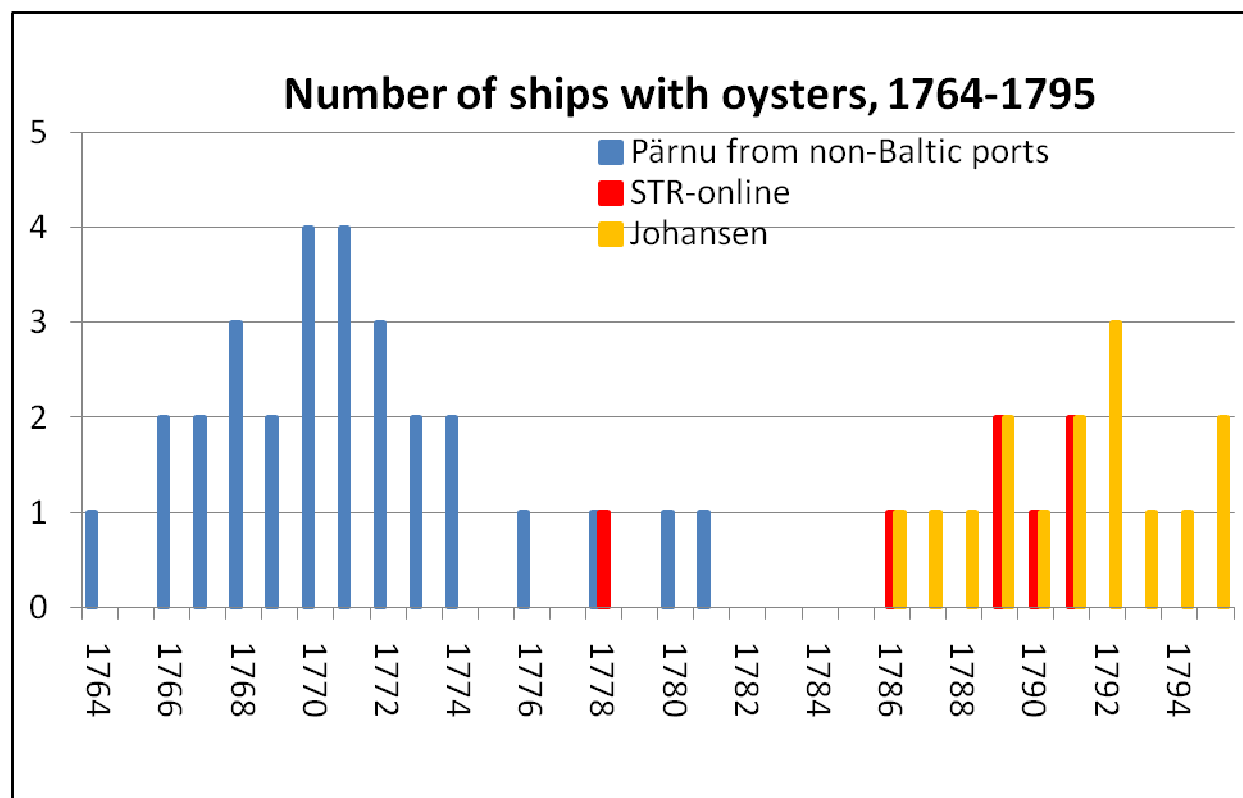


Table 6. Johansen database, passages with Østers listed as cargo.

Johansen, pasages with 'østers' listed as cargo							
Year	first name	Last name	domicil	ship from	destination	date	cargo
1786	HALKILD	JENSEN	Undahl	Stavanger	København	05-05-1786	østers
1787	JACOB	JAMES	London	London	St.Petersborg	04-05-1787	østers
1788	OLE	BERGESEN	Farsund	Newcastle	København	11-04-1788	østers
1789	JOHN	COOLE	London	London	St.Petersborg	04-05-1789	østers
1789	ERNST	SCHUENEMAN	Stettyn	Marstrand	Norrköping	09-06-1789	østers
1790	Adrian	Jacobsen	Farsund	Stavanger	St. Petersburg	10-04-1790	østers
1791	ADRIAN	Jacobsen HOLM	Farsund	Stavanger	St.Petersborg	10-04-1791	østers
1791	HANS	BANG	Kopenhagen	Stavanger	København	09-11-1791	østers

Table 7. STR-online, passages containing information on oysters relative to Johansen dataset

STR-online, passages containing information on oysters relative to Johansen dataset								
Year	ID	first name	Last name	domicil	ship from	Destination	date	cargo
1786	76779	Halkild	Jensen	Undahl	Stavanger	St. Petersburg	6 May 1786	endeel østers og torsk
The year 1787 does not feature in STR-online no ship skippered by Ole Bergesen from Newcastle etc. Around 10-12 April. - no link to scanned image								
1789		John	Coole	London	London	St. Petersburg	4 May	Steen og østers
1789		Ernst	Schuneman	Stettin	Marstrand	Norkioping	9 June 10 April	østers
1790	29170	Adrian Adrian	Jacobsen	Farsund	Stavanger	St. Petersburg	1790	østers
1791		A.	Holm	Fahrsund	Stavanger	St. Petersburg	10-apr	østers
1791		Hans	Bang	Kiøbenhavn	Stavanger	Kiøbenhavn	09-nov	østers

Discussion

1) On the STR-online as a source:

The STR-online database will surely become an invaluable source of information on the Baltic trade in luxury items such as oysters. The uniform data collection offers the possibility to track the possible beginning of the Baltic interest in oysters, and since oyster does not thrive in the Baltic proper, all consumption is related to international trade. As the paper shows, oyster does indeed feature in the STR-online database, and the likely positive long term presence is a testimony to the spread *conspicuous marine consumption*.

The database however has some limitations. One such limitation is the question of whether all relevant information on the commodities aboard ships passing the Sound indeed appears in the records. On a direct comparison with the Johansen dataset only 6 of the 8 oyster shipments in the Johansen dataset appear in the STR-online dataset for matching years.

This is also the case when comparing the information on the oysters entering the port of Pärnu with the information in the STR-online database, where for comparable years, none of the 21 oyster shipments from non-Baltic ports appears in the STR-online database.

A second type of limitation is the presence of competing trade routes into the Baltic. Especially luxury items, which are less dependent on bulk transportation could have a tendency to enter the Baltic via alternative trade routes. The analyses of the Pärnu custom rolls clearly shows that while oysters were shipped into the port 72 times from 1764-1782, the ship route through The Sound seems to have been used only 29 times, or in c. 40 percent of the cases.

The majority of the oysters travelling to Pärnu came from Lübeck. Since the Pärnu records stem from before the opening of the Eider Canal, either an overland routes from The Waddensea coast to Lübeck, or via the Elbe river connection and river Trave to Lübeck are the likely trade routes for the oysters.

2) On the question of the rise of conspicuous consumption.

The STR-online database expands our knowledge of when and where oysters appeared in the Baltic. While the full picture may not emerge, and needs the supplement from additional sources, the Sound toll reveals that for the latter decades of the 18th century oyster appears to have been imported frequently into the ports of Copenhagen, Norrköping and St. Petersburg. The Johansen database has oyster entering Copenhagen once or twice a year – perhaps destined for further exports, while the Pärnu custom rolls holds the information the oyster was imported into the city 72 times over a span of 19 years. What the records are not revealing is if the oysters were for local consumption in the ports of entry, or if they were also subject to further inland transportation. Through the Pärnu records it is evident that the buyers of the oyster belongs to the highest strata of society, which are the likely end consumers as well as likely investors in trade with the hinterland, so they could have been transported further inland.

3) On the ways of the oyster

The combination of the different sources indicate that the oysters originated from at least 3 possibly 4 of the oyster beds in North Sea. The shipments from Stavanger are likely to contain oysters from the South Western parts of Norway. The shipment from Newcastle was potentially filled with oysters from the Firth of forth area of Scotland, but they could also have been loaded in Norway en route to the Baltic. The oysters being shipped from Amsterdam most likely originated from the Maas area and Zeeland in The Dutch Republic. The majority of shipments into Pärnu came from Lübeck, and while this could also be a trade route for goods from the Low Countries, it is quite likely that the Lübeck merchants got their supplies of oyster from the beds along the North Sea

coast of Holstein. The Pärnu records further reveal that for an easily perishable product like fresh oysters the travel time was of vital importance, which seems to have given the Lübeck merchants a comparable advantage.

BP, 8 June 2010.